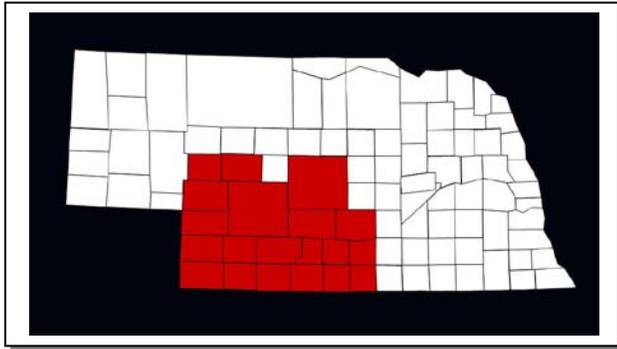


## 2009 Impact Report



### West Central Research and Extension Center

University of Nebraska–Lincoln Extension specializes in developing research based educational programs and delivering them to your local community in a variety of interactive educational ways. Our goal is to help you turn information into solutions so you can improve your business, community, or personal life.

Since 1904, the University of Nebraska–Lincoln (UNL) West Central Research and Extension Center (WCREC) at North Platte has addressed problems and concerns specific to the 20 counties of West Central Nebraska. The UNL WCREC is a research and extension facility of the UNL Institute of Agriculture and Natural Resources (IANR).

Extension specialists and educators are committed to excellence, conducting research and educational programs customized to meet the needs of Nebraskans. Our overall objective is to provide research-based information and other educational resources to the 20-county West Central district and beyond. Each day Extension makes a difference in the lives of adults and youth living in west central Nebraska. Our efforts rely increasingly on partnerships with county government, business, industry, schools, communities, and foundations. Our programs change as we listen to the needs of the people we serve.

#### Public Value:

- ❖ Adults and youth who make healthy food and exercise choices reduce future health care costs.
- ❖ Youth who engage in science, engineering, and technology exploration will contribute to new innovations and scientific discoveries as adults.
- ❖ Producers will increase production of high quality food products to feed the growing world population while protecting the environment.
- ❖ Profitable farm enterprises sustain the economy of rural communities.
- ❖ Producers who improve irrigation efficiencies contribute to the sustainable use of groundwater and reduced energy consumption.
- ❖ Entrepreneurs build local economies by providing jobs, supporting other businesses, and retaining young workers in the community.
- ❖ Food service workers who improve food handling practices reduce risk of foodborne illness outbreaks in communities.

## Food, Nutrition, and Health

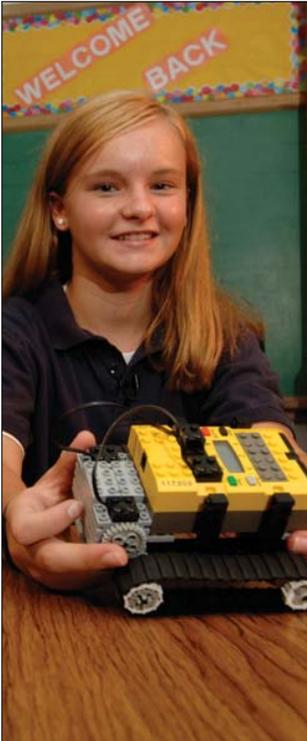
*Nebraskans learn how to select, prepare, and store foods for optimum nutrition and safety. Adults and youth choose physically active lifestyles.*



### Impact:

- **Kearney After School Program (2005-2009):** A total of 439 students have participated in the Kearney After School Program where 4-H and SNAP-Ed nutrition materials are used to teach elementary students in Kearney to improve their eating habits and hand washing skills. One hundred percent of participating students have improved their hand washing skills and increased their knowledge of MyPyramid and food safety.
- **Food Safety Training:** A 16-hour ServSafe Food Safety Training Program reaching more than 978 food service managers and a 4-hour ServSafe Starters Program reaching 101 food service employees from across the state were taught. Approximately 176,620 individuals are served each month at the establishments of the participants who have attended a food safety training session. Participants reported a significant increase in food safety knowledge. As a result of ServSafe training, 100 percent of the employees are more careful when handling food; 92 percent reported employees are more likely to use thermometers; and 54 percent of respondents reported the food inspection ranking for their establishment has improved since the training.
- **Food Allergy Trainings (2006-2008):** The Central Nebraska Food Safety Team developed three two-hour programs on general information about food allergies, including how to minimize risks, avoid legal issues, and strategies for handling emergency situations. Since 2006, 241 food service workers, school service personnel, and childcare providers have attended trainings and reported an increase in knowledge about food allergies. Twenty-seven percent indicated they had written a policy on food allergies because of the workshop.
- **Reducing Obesity in Nebraska:** The direct medical costs of obesity complications per Nebraskan are projected to increase from \$394 per person in 2008 to \$1,486 per person in 2018. University of Nebraska–Lincoln Extension is actively working to slow the escalating epidemic of obesity for all Nebraskans through direct teaching efforts. One program, **Nutrition Mission**, a three-session nutrition education program for fourth through sixth graders, teaches the importance of selecting nutrient rich beverages such as milk, the importance of choosing healthy snacks, and the value of reading the nutrition facts label. This program has been taught to over 1,500 students. Evaluations indicate students read the food label more often, choose milk or water more often rather than sugared drinks, and select snack foods that fit into an overall healthy diet.

## Child and Youth Development



**4-H Youth Development:** Youth develop entrepreneurship skills and apply science and technology to 4-H projects.

**Impact:**

- **Connecting the Dots:** A Career Exploration Day to help ninth- and tenth-grade students learn more about careers of interest, as well as how to "connect the dots" from high school through post-secondary study to the workplace, reached about 150 students in North Platte and Kearney.
- **Science, Engineering, and Technology (SET) Day Camps:** Thirty-seven (37) youth participated in SET day camps in Frontier County which gave them the opportunity for educational experiences within the 4-H curriculum areas of science, engineering, and technology.
- **Water Jamborees:** Over 500 fifth-grade students from 16 public schools in a 10-county area of Nebraska and Kansas learned about water through demonstrations and hands-on activities at Water Jamborees.
- **Life on the Farm:** The "Life on the Farm" educational day for third graders in Buffalo County helped develop greater appreciation and awareness of agriculture and rural life for 387 students and 20 teachers from 11 elementary schools in the Kearney School district. "Life on the Farm" has been adopted as part of the third-grade curriculum by the Kearney Public School system.
- **Increased 4-H Enrollment and Recruitment:** Enrollment of new 4-H members and recruitment of 4-H leaders increased in the West Central District in 2009. For example, 96 new 4-H members were enrolled (6.5% increase) and 18 new leaders and volunteers (45% increase) were recruited in Keith-Arthur-Perkins counties during 2009. Four new 4-H clubs and the first Clover Kids Club were started in the Southwest Four Counties with 17 new 4-Hers and 19 new Clover Kids.
- **Youth Science Field Days:** Six Youth Science Field Days were held at the Gudmundsen Sandhills Laboratory (GSL), WCREC, Kearney, Holdrege, and Nebraska College of Technical Agriculture (NCTA), reaching 802 students from about 41 area high schools with demonstrations about Nebraska agriculture, basic science, and career opportunities at the College of Agricultural Sciences and Natural Resources (CASNR) and UNL.

## Water, Climate, and Environment



**Crops:** Producers adopt irrigation and conservation practices that will reduce agricultural water use and protect soil and water quality.

**Impacts:**

- **Nebraska No-Till Conference:** For the past six years, the Nebraska No-Till Conference has been held in Holdrege and Mead. In 2009, the conferences were attended by 434 participants from 58 Nebraska counties and five states. Participants that had previously attended a Nebraska No-Till Conference reported saving \$15.75 per acre on over 227,000 new acres of no-till for a total annual impact of \$3.76 million. By adopting no-till practices, producers reduce irrigation pumping requirements, soil erosion, and stream sedimentation, and improve profitability.
- **Crop Water Use Efficiency Field Tours:** A series of Increasing Crop Water Use Efficiency Field Tours was attended by 225 people in 2009. This series teaches producers water-conserving strategies that will reduce water usage and lower pumping costs while producing near top yields. Survey results from 56 producers indicated an impact of \$19.41 per acre for a total impact of \$1.57 million. In addition, producers reported a potential water savings of 2.7 inches/acre for a total savings of 18,245 acre feet, a 15-20% savings.
- **Corn/Soybean Workshop:** UNL Extension's December 2008 Growing Corn/Soybeans to Fuel Workshops included emphasis on biofuels along with no-till practices for corn and soybean production. With the increased demand for corn and soybeans, because of ethanol and biofuels, there is an increased need for production practices of these crops which also protect the environment. Workshops were held at Paxton, Albion, Wilber, Aurora, and Holdrege. The total acres managed by the 61 participants in UNL Extension's Growing Corn/Soybeans to Fuel workshops reported acreage of 907,750 with an estimated value of the program per acre of \$16.60. The average attendee had 14,881 acres or a benefit per attendee of \$247,024 per year.
- **Winter Wheat Meetings:** The success of the rainfed cropping system in western Nebraska depends on having adequate crop residue. A high-yielding winter wheat crop will provide the crop residue needed for successful production of rainfed corn, grain sorghum, proso millet, and sunflower. Seventy-one Nebraska producers attended one or more UNL Extension Winter Wheat meetings or tours. The value of UNL Extension 2009 Winter Wheat meetings and tours, as estimated by producers, was \$23.83 per acre with the average producer having 2,162 acres. The value of information, as reported by producers, was \$51,520 per year, per producer. With the total attendance of 71, the estimated value of these activities was over 3.6 million dollars per year.

## Beef

*Livestock producers adopt new technologies and management practices to improve production and protect the environment.*

### Impact:

- **Ranching for Profitability:** These educational programs reached 940 producers representing 253,000 head of cows and 2,250,000 acres. Evaluations indicated 83% of the participants found the information to be financially beneficial and 85% intended to make changes based on the education provided.
  - **Nebraska Ranch Practicum:** The 181 participants in the Nebraska Ranch Practicum from 2004-2009 influenced decisions on 1,379,030 acres of upland range, meadows, seeded hayland, and cropland and 111,365 head of cows and yearlings. In addition, participants have an impact on an additional 2,417 people, 2.2 million acres, and 254,000 head of cattle through consultation and other educational activities. The average cow herd size was 688 cows per operation. The participating producers estimated the value of the Practicum at \$18.00 per head and indicated a total impact of the Practicum at \$664,132.
- **Beef Systems Research:** Heifer development systems research shows feed savings of about \$70 per pregnant heifer. Economic and biological impacts of fetal programming have been reported in previous unit reports. The impact of this work is further demonstrated by the USDA-ARS Meat Animal Research Center at Clay Center, implementing a major CRIS project in fetal programming and the University of Wyoming, North Dakota State University, University of Arkansas, Kansas State University, Montana State University, and USDA-ARS Fort Keogh Livestock and Range Research Laboratory initiating research in fetal programming.
  - **Beef Profitability Seminars:** The 228 participants influenced decisions on 41,534 cows, 17,248 feeder cattle, and 6,410 feedlot cattle. Seventy-six percent of attendees described the topics taught in the UNL Extension Beef Profitability Seminars as either very helpful or quite helpful with 95% indicating a significant increase in knowledge. Producers estimated the average value of attending the seminars at \$14.80 per head.





## Child and Youth Development

**Learning Child:** *Individuals and families have safe, supportive, and financially secure environments.*

**Impact:**

- **Parents Forever:** Half of all marriages in Nebraska and nationally end in divorce. In 2008, divorces put 5,442 children in Nebraska at risk for living in single-parent homes, living at or below the poverty level, truancy, dropping out of school, and early introduction to drugs, sex, and alcohol. In 2009, approximately 211 parents attended a parenting class at one of the five sites (Broken Bow, Ogallala, Holdrege, Kearney and McCook) in the West Central Extension District. Participants received a certificate that meets the requirements of the Nebraska Supreme Court. After completion of the classes, 40% of parents said the most important thing they learned was to focus on the needs of their children first. In addition, 22% of the parents learned better communication skills.
- **Early Childhood Education Conferences:** Child care and preschool education are necessities in many families every day. University of Nebraska–Lincoln Extension has hosted an annual Early Childhood Education Conference in Holdrege since 1988. As a result of these conferences, over 2,100 child care providers and early childhood educators have reported significant changes in these practices: appropriate interactions with children in their care, providing stimulating and safe environments for children, using positive reinforcement to modify behavior, providing parents with child development information, and using positive communication to improve relationships with parents of the children in their care. In 2009, 139 child care providers, foster parents, and early childhood educators reported an 89% change in knowledge gained in child care and best practices. In addition to the Holdrege site, conferences are also held in McCook, Broken Bow, North Platte and Kearney.
- **Guardianship/Conservator Training:** State-appointed guardians manage finances, submit reports to the court, and provide other vital roles which impact wards of the court. A court-mandated educational program, created in part by UNL Extension, prepares guardians to better serve their wards and fulfill the legal responsibilities to the court. In 2009, 154 guardians/conservators completed the program at one of the seven county sites conducted by four extension educators in the West Central Extension District. Evaluations indicated a statistically significant change in the knowledge and behavior of the guardians/conservators on the seven objectives tested. Results showed the greatest changes were 91% of participants having increased knowledge of both their court responsibilities and abilities needed to meet responsibilities as guardians/conservators, followed by 89% of participants indicating a change in understanding of what guardianship/conservatorship is.